

In the claims:

Claim 4 has been canceled in the previous amendment under PCT article 34. Please amend claims 1, 2, 3, 5-9, and 12 as shown below. Please insert new claims 13-20 as shown below.

1. (Currently amended) An isolated protein comprising an amino acid sequence of ~~Seq ID No.2~~ SEQ ID NO:2 at its N-terminus wherein said protein having the following characteristics

- (a) Molecular weight : about 47 kDa on SDS-PAGE,
- (b) Optimal pH : pH 3.5 - pH 4.5,
- (c) Optimal temperature : 45 °C - 55 °C,
- (d) Substrate specificity: phytate, p-nitrophenyl phosphate, tetrasodium pyrophosphate, ATP or ADP,
- (e) Michaelis constant of 0.3 - 0.5 mM utilizing phytate as a substrate,
- (f) High resistance to protease such as pepsin, trypsin, papain, elastase or pancreatin.pancreatin,
- (g) Specific activity to phytate : at least 1,500 units/mg.

2. (Currently amended) The protein as set forth in claim 1, wherein the protein comprises an amino acid sequence represented by amino acid residues 23-433 ~~amino-acids of Seq ID No.7~~ SEQ ID NO:7 or amino acid sequence having over 70% sequence homology with the same.

3. (Currently amended) The protein as set forth in claim 1, wherein the protein comprises an amino acid sequence represented by ~~SEQ ID No.7~~ SEQ ID NO:7 or an amino acid sequence having over 70% sequence homology with the same.

4. (Canceled)

5. (Currently amended) The protein as set forth in ~~any one of claims 1 to 3~~ claim 1,
wherein the specific activity of the protein to phytate is at least 3,000 units/mg.

6. (Currently amended) A gene coding the protein of ~~any one of claims 1 to 3 and 5~~ claim 1.

7. (Currently amended) The gene as set forth in claim 6, wherein the gene has a base sequence represented by ~~SEQ-ID. No 6~~ SEQ ID NO:6 or a base sequence having over 70% sequence homology with the same.

8. (Currently amended) A microorganism belonging to *Citrobacter* species producing the protein of ~~any one of claims 1 to 3 and 5~~ claim 1.

9. (Currently amended) A feed additive containing the protein of ~~any one of claims 1 to 3 and 5, claim 1 or combination thereof~~ as an effective ingredient.

10. (Original) The microorganism as set forth in claim 8, wherein *Citrobacter* species is *Citrobacter braakii*.

11. (Original) The microorganism as set forth in claim 10, wherein *Citrobacter braakii* is *Citrobacter braakii* YH-15 strain (Accession No: KCCM 10427).

12. (Currently amended) A feed additive containing the microorganism of ~~any one of~~
~~claims 8, 10 and 11, claim 8 or combination thereof~~ as an effective ingredient.
13. (New) The protein as set forth in claim 2, wherein the specific activity of the protein
to phytate is at least 3,000 units/mg.
14. (New) The protein as set forth in claim 3, wherein the specific activity of the protein
to phytate is at least 3,000 units/mg.
15. (New) A gene coding the protein of claim 2.
16. (New) A gene coding the protein of claim 3.
17. (New) A microorganism belonging to *Citrobacter* species producing the
protein of claim 1.
18. (New) A microorganism belonging to *Citrobacter* species producing the
protein of claim 2.
19. (New) A microorganism belonging to *Citrobacter* species producing the
protein of claim 3.
20. (New) A feed additive containing the protein of claim 2 as an effective ingredient.